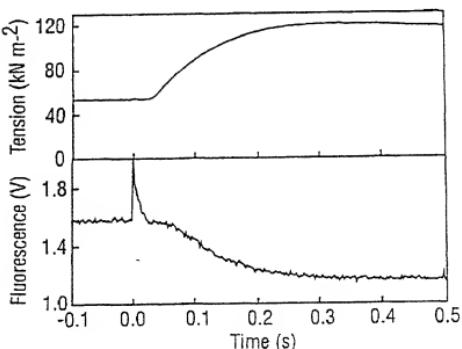




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : C12Q 1/48, C12N 9/12	A1	(11) International Publication Number: WO 00/68418 (43) International Publication Date: 16 November 2000 (16.11.00)
(21) International Application Number: PCT/GB00/01740		(81) Designated States: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
(22) International Filing Date: 5 May 2000 (05.05.00)		
(30) Priority Data: 99/0811.0 10 May 1999 (10.05.99) GB		
(71) Applicant (for all designated States except US): MEDICAL RESEARCH COUNCIL (GB/GB); 20 Park Crescent, London W1N 4AL (GB).		
(72) Inventors; and		
(75) Inventors/Applicants (for US only): BRUNEL, Martin, Herrmann, Clemens (DE/GB); National Institute for Medical Research, The Ridgeway, Mill Hill, London NW7 1AA (GB). CORRIE, John, Edgar, Thomas (GB/GB); National Institute for Medical Research, The Ridgeway, Mill Hill, London NW7 1AA (GB). WEBB, Martin, Ronald (GB/GB); National Institute for Medical Research, The Ridgeway, Mill Hill, London NW7 1AA (GB).		
(74) Agents: HALLYBONE, Huw, George et al.; Carpmaels & Ransford, 43 Bloomsbury Square, London WC1A 2RA (GB).		

(74) Title: ASSAYS FOR NUCLEOSIDE DIPHOSPHATES AND TRIPHOSPHATES



(57) Abstract

Nucleoside diphosphates (NDPs) are detected or measured by following the dephosphorylation of the phosphoenzyme form of nucleoside diphosphate kinase (NDPK), and nucleoside triphosphates (NTPs) are detected or measured by following the phosphorylation of NDPK to its phosphoenzyme form. A typical process involves (a) causing NDP in sample to bind to NDPK phosphoenzyme, or causing NTP in sample to phosphorylate NDPK and (b) detecting a change in a characteristic of the enzyme which differs between its phosphorylated and unphosphorylated forms. This may be aided by labelling the enzyme. Quantitative data can be obtained. Both *in vivo* and *in vitro* measurements can be made.